
Nama : Muhammad Alfarezzi Fallevi

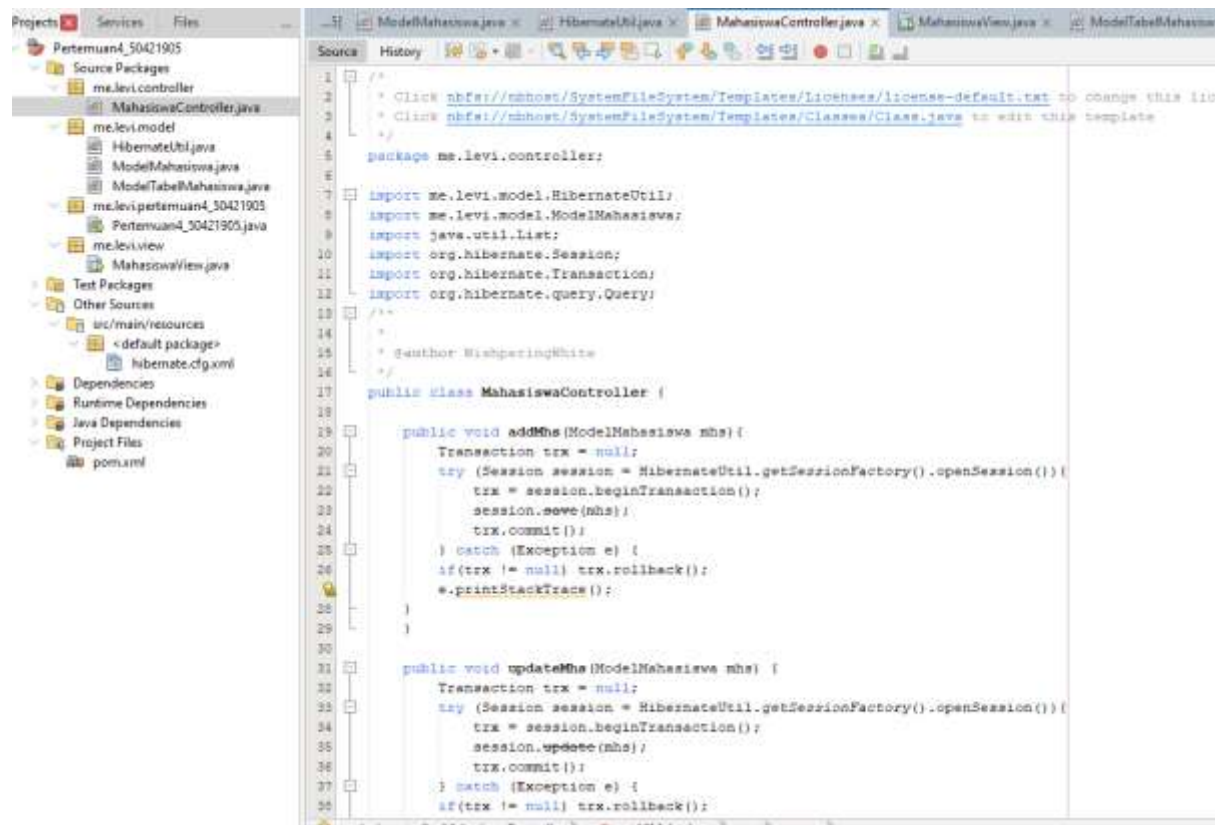
Kelas : 4IA17

NPM : 50421905

Pertemuan Ke-4

Activity 4 Rekayasa Perangkat Lunak 2

1.



The screenshot displays an IDE with a project named 'Pertemuan4_50421905'. The project structure on the left includes source packages, model classes, and view classes. The main editor shows the 'MahasiswaController.java' file, which contains the following code:

```
1  /*
2  * Click nbfs://nbhost/SystemFile/System/Templates/Licenses/license-default.txt to change this file
3  * Click nbfs://nbhost/SystemFile/System/Templates/Classes/Class.java to edit this template
4  */
5
6  package me.levi.controller;
7
8  import me.levi.model.HibernateUtil;
9  import me.levi.model.ModelMahasiswa;
10 import java.util.List;
11 import org.hibernate.Session;
12 import org.hibernate.Transaction;
13 import org.hibernate.query.Query;
14
15 /**
16 * @author WishperingWhite
17 */
18 public class MahasiswaController {
19
20     public void addMhs(ModelMahasiswa mhs) {
21         Transaction trx = null;
22         try (Session session = HibernateUtil.getSessionFactory().openSession()) {
23             trx = session.beginTransaction();
24             session.save(mhs);
25             trx.commit();
26         } catch (Exception e) {
27             if (trx != null) trx.rollback();
28             e.printStackTrace();
29         }
30     }
31
32     public void updateMhs(ModelMahasiswa mhs) {
33         Transaction trx = null;
34         try (Session session = HibernateUtil.getSessionFactory().openSession()) {
35             trx = session.beginTransaction();
36             session.update(mhs);
37             trx.commit();
38         } catch (Exception e) {
39             if (trx != null) trx.rollback();
40         }
41     }
42 }
```

```

1  //
2  * Click nbfs://nbhnot/SystemFileSystem/Template/License/license-default.txt to change this license
3  * Click nbfs://nbhnot/SystemFileSystem/Template/Classes/Class.java to edit this template
4  */
5  package me.levi.model;
6
7  import org.hibernate.Session;
8  import org.hibernate.SessionFactory;
9  import org.hibernate.cfg.Configuration;
10
11 public class HibernateUtil {
12     private static SessionFactory sessionFactory;
13
14     static {
15         try {
16             sessionFactory = new Configuration().configure().buildSessionFactory();
17         } catch (Throwable ex) {
18             System.err.println("Initial SessionFactory creation failed." + ex);
19             throw new ExceptionInInitializerError(ex);
20         }
21     }
22
23     public static SessionFactory getSessionFactory() {
24         return sessionFactory;
25     }
26
27     public static void testConnection() {
28         try (Session session = sessionFactory.openSession()) {
29             System.out.println("Connection to the Database was successful!");
30         } catch (Exception e) {
31             System.err.println("Failed to connect to the database.");
32             e.printStackTrace();
33         }
34     }
35 }

```

```

1  //
2  * Click nbfs://nbhnot/SystemFileSystem/Template/License/license-default.txt to change this license
3  * Click nbfs://nbhnot/SystemFileSystem/Template/Classes/Class.java to edit this template
4  */
5  package me.levi.model;
6
7  import jakarta.persistence.*;
8
9  /**
10   * @author WishgepingWhite
11   */
12
13 @Entity
14 @Table(name = "mahasiswa")
15 public class ModelMahasiswa {
16
17     @Id
18     @GeneratedValue(strategy = GenerationType.IDENTITY)
19     @Column(name = "id")
20     private int id;
21
22     @Column(name = "npm", nullable = false, length = 10)
23     private String npm;
24
25     @Column(name = "nama", nullable = false, length = 55)
26     private String nama;
27
28     @Column(name = "semester")
29     private int semester;
30
31     @Column(name = "ipk")
32     private float ipk;
33
34     public ModelMahasiswa() {
35
36     }
37
38     public ModelMahasiswa(int id, String npm, String nama, int semester, float ipk) {
39
40     }
41 }

```

```


1  /*
2   * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to c
3   * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this c
4   */
5  package me.levi.model;
6
7  import javax.swing.table.AbstractTableModel;
8  import java.util.List;
9
10 public class ModelTabelMahasiswa extends AbstractTableModel {
11     private List<ModelMahasiswa> mahasiswaList;
12     private String[] columnNames = {"ID", "NPM", "Nama", "Semester", "IPK"};
13
14     public ModelTabelMahasiswa(List<ModelMahasiswa> mahasiswaList) {
15         this.mahasiswaList = mahasiswaList;
16     }
17
18     @Override
19     public int getRowCount() {
20         return mahasiswaList.size();
21     }
22
23     @Override
24     public int getColumnCount() {
25         return columnNames.length;
26     }
27
28     @Override
29     public Object getValueAt(int rowIndex, int columnIndex) {
30         ModelMahasiswa mahasiswa = mahasiswaList.get(rowIndex);
31         switch (columnIndex) {
32             case 0:
33                 return mahasiswa.getId();
34             case 1:
35                 return mahasiswa.getNpm();
36             case 2:
37                 return mahasiswa.getNama();
38             case 3:
39

```

```

1  <?xml version="1.0" encoding="utf-8"?>
2  <!DOCTYPE hibernate-configuration PUBLIC "-//Hibernate/Hibernate Configuration DTD 4.0.0/EN" "http://hibernate.sourceforge.net/hib
3  <hibernate-configuration>
4      <session-factory>
5          <!-- Database connection settings -->
6          <property name="hibernate.connection.driver_class">com.mysql.cj.jdbc.Driver</property>
7          <property name="hibernate.connection.url">jdbc:mysql://localhost:3306/hibernate_50421905</property>
8          <property name="hibernate.connection.username">root</property>
9          <property name="hibernate.connection.password"></property>
10
11          <!-- JDBC connection pool settings -->
12          <property name="hibernate.c3p0.min_size">5</property>
13          <property name="hibernate.c3p0.max_size">20</property>
14          <property name="hibernate.c3p0.timeout">300</property>
15          <property name="hibernate.c3p0.max_statement">50</property>
16          <property name="hibernate.c3p0.idle_test_period">3000</property>
17
18          <!-- SQL dialect -->
19          <property name="hibernate.dialect">org.hibernate.dialect.MySQLDialect</property>
20
21          <!-- Echo all executed SQL to stdout -->
22          <property name="hibernate.show_sql">true</property>
23
24          <!-- Drop and recreate the database schema on startup -->
25          <property name="hibernate.hbm2ddl.auto">update</property>
26
27          <!-- Mapping class -->
28          <mapping class="me.levi.model.ModelMahasiswa"/>
29      </session-factory>
30  </hibernate-configuration>

```



—

□

×

NPM

50421123

Nama

Firman

Semester

7

IPK

3.1

Simpan

Buang

Refresh

ID	NPM	Nama	Semester	IPK
2	50421905	Levi	7	3.6
3	50421123	Firman	7	3.1

NPM

50421123

Nama

Firman

Semester

7

IPK

3.1

Simpan

Buang

Refresh

ID	NPM	Nama	Semester	IPK
2	50421905	Levi	7	3.6
3	50421123	Firman	7	3.1

Hapus Mahasiswa

Masukkan id yang ingin dihapus

3

OK


Cancel

Multi-ORM
tion PUBLIC "-/

ion settings --
nate.connection
nate.connection
nate.connection
nate.connection

pool settings --
nate.c3p0.min_s

sukses

 Data berhasil di hapus

OK

NPM 50421123

Nama Firman

Semester 7

3.1

Buang Refresh

Nama	Semester	IPK
Levi	7	3.6
Firman	7	3.1

nate.show_sql">


te the database

nate.hbm2ddl.au

>

vi.model.ModelM

from mahasiswa mm



—

□

×

NPM

Nama

Semester

IPK

Simpan

Buang

Refresh

ID	NPM	Nama	Semester	IPK
2	50421905	Levi	7	3.6